Abstract

The bearing rings 1 and 2 of a rolling bearing is formed of one kind of titanium alloys of β type titanium alloys, near β type titanium alloys and α + β type titanium alloys. The titanium alloy has a surface hardness of Hv 400 or more and less than Hv 600 for increasing the corrosion resistance and wear resistance of the bearing ring. Spherical rolling elements 3 rolling on the raceway surfaces 1a and 2a of the bearing rings 1 and 2 are formed of ceramics such as silicon nitride. When β type titanium alloys or α + β type titanium alloys after a solution treatment and applied with an oxidation treatment at a low temperature of 400 to 600°C are used as the material for the bearing ring, a bearing ring made of titanium alloy suitable to use under a circumstance requiring corrosion resistance is obtained.

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